shall not constitute attributable ownership interests for purposes of paragraph (a) of this section:

- (1) A limited partnership interest held by an institutional investor (as defined §24.720(h)) where the limited partner is not materially involved, directly or indirectly, in the management or operation of the PCS holdings of the partnership, and the licensee so certifies. The criteria which would assure adequate insulation for the purposes of this certification require:
- (i) Prohibiting limited partners from acting as employees of the limited partnership if responsibilities relate to the carrier activities of the licensee;
- (ii) Barring the limited partners from serving as independent contractors;
- (iii) Restricting communication among limited partners and the general partner regarding day-to-day activities of the licensee;
- (iv) Empowering the general partner to veto admissions of new general partners:
- (v) Restricting the circumstances in which the limited partners can remove the general partner;
- (vi) Prohibiting the limited partners from providing services to the partnership relating to the PCS holdings of the licensee; and
- (vii) Stating that the limited partners may not become involved in the management or operation of the licensee. See 47 CFR 73.3555 Note 2(g)(2); Memorandum of Opinion and Order in MM Docket 83–46, FCC 85–252 (released June 24, 1985), as modified on reconsideration in the Memorandum of Opinion and Order in MM Docket No. 83–46, FCC 86–410 (released November 28, 1986).
- (2) Institutional investors who held limited partnership interests prior to March 2, 1995 shall be granted one year from that date to amend their limited partnership agreements to comply with the insulation rules and so certify to the Commission. During this transition period, the licensee in which an institutional investor holds an interest shall also certify to the Commission that the institutional investor limited partner(s) are not materially involved, directly or indirectly, in the management or operation of the licensee.

[60 FR 13917, Mar. 15, 1995; 60 FR 26375, May 17, 1995]

§24.102 Service areas.

Narrowband PCS service areas are nationwide, regional, Major Trading Areas (MTAs) and Basic Trading Areas (BTAs) as defined below. MTAs and BTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38–39 ("BTA/MTA Map"). Rand McNally organizes the 50 States and the District of Columbia into 47 MTAs and 487 BTAs. The BTA/MTA Map is available for public inspection at the Office of Engineering and Technology's Technical Information Center, Room 7317, 2025 M Street, NW., Washington, DC.

- (a) The nationwide service area consists of the fifty states, the District of Columbia, American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and United States Virgin Islands.
- (b) The regional service areas are defined as follows:
- (1) Region 1 (Northeast): The Northeast Region consists of the following MTAs: Boston-Providence, Buffalo-Rochester, New York, Philadelphia, and Pittsburgh.
- (2) Region 2 (South): The South Region consists of the following MTAs: Atlanta, Charlotte-Greensboro-Greenville-Raleigh, Jacksonville, Knoxville, Louisville-Lexington-Evansville, Nashville, Miami-Fort Lauderdale, Richmond-Norfolk, Tampa-St. Petersburg-Orlando, and Washington-Baltimore; and, Puerto Rico and United States Virgin Islands.
- (3) Region 3 (Midwest): The Midwest Region consists of the following MTAs: Chicago, Cincinnati-Dayton, Cleveland, Columbus, Des Moines-Quad Cities, Detroit, Indianapolis, Milwaukee, Minneapolis-St. Paul, and Omaha.
- (4) Region 4 (Central): The Central Region consists of the following MTAs: Birmingham, Dallas-Fort Worth, Denver, El Paso-Albuquerque, Houston, Kansas City, Little Rock, MemphisJackson, New Orleans-Baton Rouge, Oklahoma City, San Antonio, St. Louis, Tulsa, and Wichita.
- (5) Region 5 (West): The West Region consists of the following MTAs: Honolulu, Los Angeles-San Diego, Phoenix, Portland, Salt Lake City, San Francisco-Oakland-San Jose, Seattle (including Alaska), and Spokane-Billings;

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and, American Samoa, Guam, and the Northern Mariana Islands.

- (c) The MTA service areas are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38–39, with the following exceptions and additions:
- (1) Alaska is separated from the Seattle MTA and is licensed separately.
- (2) Guam and the Northern Mariana Islands are licensed as a single MTA-like area.
- (3) Puerto Rico and the United States Virgin Islands are licensed as a single MTA-like area.
- (4) American Samoa is licensed as a single MTA-like area.
- (d) The BTA service areas are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38-39, with the following additions licensed separately as BTA-like areas: American Samoa; Guam; Northern Mariana Islands; Mayaguez/Aguadilla-Ponce, Puerto Rico; San Juan, Puerto Rico; and the United States Virgin Islands. The Mayaguez/Aguadilla-Ponce BTA-like service area consists of the following municipios: Adjuntas, Aguada, Aguadilla, Anasco, Arroyo, Cabo Rojo, Coamo, Guanica, Guayama, Guayanilla, Hormigueros, Isabela, Jayuya, Juana Dıaz, Lajas, Marias, Maricao, Maunabo, Mayaguez, Moca, Patillas, Penuelas, Ponce, Quebradillas, Rincon, Sabana Grande, Salinas, San German, Santa Isabel, Villalba, and Yauco. The San Juan BTA-like service area consists of all other municipios in Puerto Rico.

[59 FR 14118, Mar. 25, 1994, as amended at 59 FR 46199, Sept. 7, 1994]

§24.103 Construction requirements.

- (a) Nationwide narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 750,000 square kilometers or serve 37.5 percent of the U.S. population within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 1,500,000 square kilometers or serve 75 percent of the U.S. population within ten years of initial license grant date.
- (b) Regional narrowband PCS licensees shall construct base stations that

provide coverage to a composite area of 150,000 square kilometers or serve 37.5 percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 300,000 square kilometers or serve 75 percent of the service area population within ten years of initial license grant date.

- (c) MTA narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 75,000 square kilometers or 25 percent of the geographic area, or serve 37.5 percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 150,000 square kilometers or 50 percent of the geographic area, or serve 75 percent of the population of the service area within ten years of initial license grant date.
- (d) BTA narrowband PCS licensees shall construct at least one base station and begin providing service in its BTA within one year of initial license grant date.
- (e) In demonstrating compliance with the above construction requirements, licensees must base their calculations on signal field strengths that ensure reliable service for the technology utilized
- (1) For the purpose of this section, the service radius of a base station may be calculated using the following formula:

 $d_{km} = 2.53 \times h_m 0.34 \times p^{0.17}$

where d_{km} is the radial distance in kilometers,

 h_{m} is the antenna HAAT of the base station in meters, and

- p is the e.r.p. of the base station in
- (2) Alternatively, licensees may use any service radius contour formula developed or generally used by industry, provided that such formula is based on the technical characteristics of their system.
- (f) Upon meeting the five and ten year benchmarks in paragraphs (a), (b) and (c) of this section, licensees shall